

Supplementary Tables

Supplementary Table S1. Comparison of characteristics of linked and non-linked data from students attending the 81 linked-longitudinal COMPASS secondary schools across the three study waves (2018/19, 2019/20, and 2020/21).

	Linked (n= 5368)	Non-linked (n=42286)	P (χ^2 /t-test)
Sex (female)	60.2 (3211)	48.1% (20,065)	<0.001
Age			<0.001
12-13	36.9 (1974)	19.36% (7,841)	
14	36.3 (1944)	30.2 (12312)	
15-18	26.7 (1427)	50.5 (20559)	
Race/ethnicity			<0.001
White	79.9 (4288)	70.6 (29843)	
Black	1.8 (95)	4.2 (1768)	
Asian	6.2 (332)	7.7 (3256)	
Latin/Hispanic	1.0 (54)	2.4 (1015)	
Mixed/Others	11.2 (599)	15.1 (6404)	
Drinking level			<0.001
None	66.5 (3539)	55.1 (22916)	
Occasional	16.8 (896)	18.5 (7666)	
Monthly	13.9 (740)	19.2 (7997)	
Weekly	2.8 (149)	7.2 (2981)	
Binge drinking			<0.001
None	84.2 (4516)	73.1 (30824)	
Occasional	9.4 (506)	13.1 (559)	

Monthly	5.7 (303)	10.8 (4532)
Weekly	0.7 (35)	3.0 (1258)

Supplementary Table S2. Latent transition model fit indices

	-Log likelihood	G ²	df	AIC	Adjusted BIC
Overall					
2-class	24707.4	5649.0	4078	5683.0	5794.9
3-class	23186.3	2606.9	4063	2670.9	2881.7
4-class	22755.7	1745.6	4044	1847.6	2183.6
5-class	22578.8	1381.8	4021	1529.8	2017.3
6-class	22498.8	1231.9	3994	1433.9	2099.3
FEMALES					
2-class	15113.7	3564.4	4078	3598.4	3701.7
3-class	14218.1	1773.0	4063	1836.9	2031.5
4-class	14032.1	1401.0	4044	1503.0	1813.0
5-class	13860.1	1057	4021	1205	1654.9
6-class	13816.2	969.3	3994	1171.3	1785.3
MALES					
2-class	9488.2	2715.3	4078	2749.3	2845.6
3-class	8845.2	1429.4	4063	1493.4	1674.7
4-class	8670.4	1079.7	4044	1181.6	1470.7
5-class	8600.3	939.5	4021	1087.5	1506.9
6-class	8558.4	855.8	3994	1057.8	1630.3

G²: Likelihood ratio statistics; df: degrees of freedom; AIC: Akaike Information Criteria; BIC: Bayesian Information Criteria.

Supplementary Table S3. Comparison of transition probabilities between latent statuses of youth alcohol consumption among two cohorts during one year before the COVID-19 pandemic and two years during the pandemic in females and males attending the 81 linked-longitudinal COMPASS schools across the three study waves (2018/19, 2019/20, and 2020/21)

Cohort	Abstainer		Occasional drinker-no binging		Occasional binge drinker		Monthly binge drinker		Weekly binge drinker	
	T2a	T2b	T2a	T2b	T2a	T2b	T2a	T2b	T2a	T2b
Females										
Pre-pandemic (T1)										
Abstainer	0.66	0.69	0.22	0.22	0.07	0.03	.05	0.04	0.00	.01
Occasional drinker-no binging	0.01	0.01	0.35	0.52	0.41	0.25	0.22	0.21	0.00	0.02
Occasional binge drinker	0.00	0.01	0.14	0.23	0.45	0.32	0.37	0.37	0.03	0.05
Monthly binge drinker	0.00	0.04	0.05	0.13	0.06	0.02	0.71	0.64	0.17	0.17
Weekly binge drinker	0.00	0.01	.00	0.00	0.20	0.00	0.01	0.13	0.80	0.86
Early- pandemic (T2)										
Abstainer	0.73	0.78	0.17	0.18	0.06	0.02	0.03	0.01	0.01	0.00
Occasional drinker-no binging	0.08	0.03	0.50	0.56	0.27	0.21	0.11	0.17	0.04	0.03
Occasional binge drinker	0.09	0.02	0.23	0.32	0.37	0.49	0.27	0.13	0.04	0.04
Monthly binge drinker	0.03	0.03	0.05	0.04	0.24	0.14	0.54	0.59	0.14	0.18
Weekly binge drinker	0.00	0.05	0.07	0.00	0.14	0.00	0.30	0.18	0.48	0.77
Males										
Pre- pandemic (T1)										
Abstainer	0.68	0.73	0.18	0.14	0.7	0.08	0.06	0.03	0.01	0.02
Occasional drinker-no binging	0.00	0.00	0.40	0.87	0.35	0.01	0.22	0.02	0.03	0.10
Occasional binge drinker	0.04	0.00	0.13	0.00	0.30	0.65	0.49	0.25	0.04	0.01
Monthly binge drinker	0.03	0.08	0.00	0.00	0.11	0.00	0.62	0.61	0.24	0.31
Weekly binge drinker	0.05	0.00	0.09	0.03	0.68	0.46	0.17	0.48	0.68	0.46
Early- pandemic (T2)										
Abstainer	0.79	0.80	0.14	0.07	0.04	0.03	0.02	0.02	0.01	0.03
Occasional drinker-no binging	0.07	0.00	0.47	0.49	0.29	0.07	0.13	0.16	0.03	0.07
Occasional binge drinker	0.10	0.25	0.13	0.00	0.54	0.66	0.21	0.25	0.02	0.07
Monthly binge drinker	0.05	0.01	0.01	0.00	0.15	0.15	0.52	0.52	0.28	0.32
Weekly binge drinker	0.05	0.24	0.02	0.03	0.00	0.00	0.17	0.24	0.76	0.71